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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,401	07/26/2001	Jose Kolencheril Raphel	1763.0140000	4249
24280	7590	03/23/2006	EXAMINER	
CHOATE, HALL & STEWART LLP TWO INTERNATIONAL PLACE BOSTON, MA 02110			DINH, DUNG C	
			ART UNIT	PAPER NUMBER
			2153	
DATE MAILED: 03/23/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,401

Applicant(s)

RAPHEL ET AL.

Examiner

Dung Dinh

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
4a) Of the above claim(s) 14-33 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 26 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 12/21/05 have been fully considered but they are moot in view of a new ground of rejection below.

Restriction

Newly submitted claims 14-33 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claims 1-13 are directed at a method and system for forwarding request to a server that is within an optimal performance range and buffering the request when the server performance is outside the optimal performance range.

New claims 14-33 are directed at a method and system for pooling transport connections to a server and maintaining the number of connections below a maximum number.

The invention of claims 1-13 and 14-33 are related as subcombinations usable together. The invention of claims 1-13 does not requires the limitations of claims 14-33 to operate and invention of claims 14-33 does not requires the limitation of claims 1-13 to operate. The invention of claims 1-13 can be used separately to optimize dispatching of requests to a server.

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The invention of claims 14-33 can be used separately to control the number of open connections to a server.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 14-33 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Therefore, claims 1-13 are pending for examination.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-11 are rejected under 35 U.S.C. 102(b) or in the alternative under 103(a) as being unpatentable over Colyer US patent 6,023,722.

As per claim 1, Colyer teaches a method for maximizing throughput while avoiding overload of one or more servers, comprising the steps of:

intercepting, via an interfacing unit (fig.1 Queuing unit #31), a client request for information from the server;

forwarding, by the interface unit, said client request to the server whereby avoiding overload of the server (fig.3 step 304, col.6 lines 41-44);

where server performance is outside of optimal range, buffering, by the interface unit, the client request until said server performance is within optimal range. (Inherent by the effect of queuing the request. It is inherent that when the servers are not in 'optimal' performance range, a 'pull' request would not be issued. Colyer did not discuss dropping the requests from the queue when all of the servers are busy. Hence, the client requests inherently remained in the buffer of queuing unit 31.)

Coyler's preferred embodiment has interface unit forwarding request to a server that has issued a 'pull' message (col.6 lines 26-44). Hence, the server's condition is determined by receiving of the 'pull' message. However, Coyler also discloses that it is prior art to have the interface unit made forwarding decisions by monitoring how busy a server is (col.3 lines 39-44). It is well known in the art that the number of active connections, response time, and changes in response time are data indicative of a server's busyness. Therefore, Coyler anticipated the limitation of determining by the interface unit the current server performance.

Furthermore, having the interface unit determine the server's performance instead of having the servers issue a 'pull' request (i.e. practicing Coyler's disclosed prior art) would have been an obvious variation because it would have avoided direct infringement of Coyler's claims.

As per claim 2, Coyler teaches queuing the client requests. Queuing by definition is first-in-first-out buffering.

As per claim 3, Coyler teaches determining the position of the client request based on a preferred client value (col.6 line 64 to col.7 line 17).

As per claim 4, Coyler teaches prioritizing the request based on a header related to the client request (col.7 lines 13-16).

As per claims 8-11, they are system claims corresponding to the method claims 1-4. Hence, they are rejected under similar rationales as for claims 1-4 above.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phaal US patent 6,055,564 and further in view of Shabtay et al. US Pub. No. 2002/0120743.

As per claim 1, Phaal teaches a method for maximizing throughput while avoiding overload of one or more servers, comprising the steps of:

intercepting, via an interfacing unit (fig.1 #11), a client request for information from the server;

determining, by the interface unit, the current server performance, wherein the server performance is based on one or more of the number of active connections, response time, and changes in response time (fig.3 step #147, col.8 lines 61-66);

forwarding, by the interface unit, said client request to the server if said current server performance is within a determined optimal range, whereby avoiding overload of the server (fig.3 step 139, col.8 lines 61-66); and

Phaal does not specifically disclose where server performance is outside the optimal range, buffering, by the

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interface unit, the client request until said server performance is within optimal range. However, keeping request in buffer until a server is available is well known in the art. In similar field of invention, Shabtay discloses a load balancer (interface unit) for forwarding client requests to servers. Shabtay discloses the load balancer buffering client requests until a connection with a server is available (p.4 [0043]). Phaal discloses new session request are deferred back to the client when server resource are not available; however, requests from session-in-process are admitted. (col.5 line 60 to col.6 line 12). Phaal teaches incoming requests are put in a queue (fig.1 #28). Phaal does not specifically disclose what happened when a server is not available to service a request from a session-in-progress. Phaal's goal is to ensure completion of session-in-process as soon as possible (Phaal col.5 lines 60-68). Hence, it would have been obvious for one of ordinary skill in the art to combine the teaching of Phaal with Shabtay to maintain the requests from session-in-progress in the queue instead of deferring them back to the client because it would have enable the system to forward these requests as soon as a server is available; thereby ensuring completion of the session quickly and reliability without incurring long delays resulted from deferring the requests to the client.

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As per claim 2, Phaal teaches queuing the client requests. (col.5 lines 30-32). Queuing by definition is first-in-first-out buffering.

As per claim 3, Phaal teaches determining the position of the client request based on a preferred client value (col.5 lines 25-39).

As per claim 4, Phaal teaches prioritizing the request based on one or more of the network address, a header related to the client request, previous request and by a cookie (col.5 lines 27-39).

As per claim 5, Shabtay teaches multiplexing connection to the server, whereby the connections may be reused for different client requests (p.5 [0047]). It would have been obvious for one of ordinary skill in the art to combine Shabtay multiplexed connections with Phaal because it would have reduces the server load (p.2 [0010]).

As per claim 6, Shabtay teaches closing connections to reduce server load (p.3 [0034]).

As per claim 7, Shabtay teaches server performance is determined by the number of pending requests (p.4 [0036]). Phaal and Shabtay does not specifically disclose server overload message. It would have been obvious to one of ordinary skill in

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the art that a server overload message would have indicated the current performance of the server.

As per claims 8-13, they are system claims corresponding to the method of claims 1-7. Hence, they are rejected under similar rationales as for claims 1-7 above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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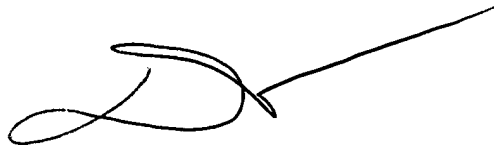
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Dinh whose telephone number is (571) 272-3943. The examiner can normally be reached on Monday-Friday from 7:00 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached at (571) 272-3949.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Dung Dinh', with a long horizontal stroke extending to the right.

Dung Dinh
Primary Examiner
March 19, 2006